SEQUENCE LISTING

```
<110> LIAU, Gene
      STEFANSSON, Steingrimur
      SU, Joseph
<120> ENDOTHELIAL CELL SPECIFICALLY BINDING
  PEPTIDES
<130> 4-32422A/GTI/USN
<140> 10/537,847
<141>
<150> PCT/EP03/014407
<151> 2003-12-17
<150> 60/434,258
<151> 2002-12-18
<160> 43
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 1
Cys Pro Asp Leu His His His Met Cys
<210> 2
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 2
Cys Leu Gly Gln His Ala Phe Thr Cys
<210> 3
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 3
Cys Ser Ser Asn Thr Ala Pro His Cys
<210> 4
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 4
Cys His Val Leu Pro Asn Gly Asn Cys
<210> 5
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 5
Cys Lys Pro Gly Ile Tyr Pro Ser Leu Cys
<210> 6
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 6
Cys Gln Thr Ala Arg Thr Pro Ala Cys
<210> 7
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 7
Cys Asn Gln Ser Gln Pro Lys His Cys
                 5
<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 8
Cys Thr Pro Ser Lys Ile Ser Val Cys
<210> 9
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 9
Cys Val Ser Pro Gly Pro Arg Leu Cys
<210> 10
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 10
Cys Tyr Ala Leu Ser Gly Val Pro Cys
<210> 11
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 11
Cys Lys His Pro Pro Gln Pro Phe Cys
<210> 12
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 12
Cys His Gln Ser Lys Pro Leu Leu Cys
<210> 13
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 13
Cys Pro Gly Pro Phe Ser Asn Trp Cys
                 5
<210> 14
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 14
Cys Pro His Lys Thr His Leu Pro Cys
<210> 15
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 15
Cys Val Phe Pro Leu Ser His Tyr Cys
<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 16
Cys Asn Met Ile Ala Pro Ser Ser Cys
                 5
<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 17
Cys Thr Leu Gly Met Gln Phe Gln Cys
<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 18
Cys Thr Asn Pro Thr Gly Met Leu Cys
<210> 19
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface 'molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 19
Cys Ser Asn Met Ala Pro Arg Ser Cys
<210> 20
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 20
Cys Ser Met Ala Pro Asn Met Ser Cys
<210> 21
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 21
Cys Ser Asp Leu Thr Met Glu Ala Cys
<210> 22
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 22
Cys Pro Trp Pro Tyr Lys Tyr Ser Cys
<210> 23
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 23
Cys Phe Gly Gly Asn Phe His Arg Cys
<210> 24
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 24
Cys Leu Thr Thr Ser Gln Gln Thr Cys
<210> 25
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 25
Cys Thr Ala Asn Ser Gly Ser Phe Cys
<210> 26
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 26
Cys Gln Glu Pro Leu Asp Glu Ser Cys
<210> 27
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 27
Cys Gln Met Ser Met Phe Ala Arg Cys
<210> 28
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 28
Cys Pro Leu Thr Pro Lys Ala Tyr Cys
<210> 29
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 29
Cys Asn Asn Ser His Thr Ala Leu Cys
                 5
<210> 30
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 30
Cys Leu Ser Ser Asp Ile Thr Leu Cys
<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 31
Cys Leu Thr His Gly Pro Lys Tyr Cys
<210> 32
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 32
Cys Leu Gly Lys Asp Leu Arg Thr Cys
<210> 33
<211> 9
<212> PRT
<213> Artificial Sequence
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 33
Cys Ala Pro Lys Thr His Pro Leu Cys
<210> 34
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 34
Cys Pro Thr Gly Leu Met Lys Tyr Cys
<210> 35
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
```

```
<400> 35
Cys Thr Trp Lys Ala Pro Leu Gln Cys
<210> 36
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 36
Cys Ser His Ile Leu Gly Pro Ser Cys
<210> 37
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Artificial sequence derived from human and animal
      adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> PEPTIDE
<222> (1)...(9)
<223> Peptide Specific for Endothelial Cell Binding
<400> 37
Cys Leu Ser Thr Ser Gln Tyr Ser Cys
<210> 38
<211> 34
<212> DNA
<213> Artificial Sequence
<220>
<223> Artificial oligo sequence derived from human and
      animal adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> misc feature
<222> (1)...(34)
<223> Oligonucleotide containing the PD1 peptide and
```

overhangs for Bcll and BsrGI sites

<400> gatcaa	38 atgtc ctgacctaca ccaccacatg tgtt	34
<210> <211> <212> <213>	34	
<220> <223>	Artificial oligo sequence derived from human and animal adenovirus peptide sequences for binding to endothelial cell surface molecules	
<222>	<pre>misc_feature (1)(34) Oligonucleotide containing the PD1 peptide and overhangs for Bcll and BsrGI sites</pre>	
<400> gtacaa	39 acaca tgtggtggtg taggtcagga catt	34
<210> <211> <212> <213>	33	
<220> <223>	Artificial oligo sequence derived from human and animal adenovirus peptide sequences for binding to endothelial cell surface molecules	
<222>	misc_feature (1)(33) Oligonucleotide that is synthesized to generate fusion peptide for specific binding of the targeting peptide to the target cell	
<400> ggcctq	40 gtcct gatcttcatc atcatatgtg tgc	33
<210> <211> <212> <213>	33	
<220> <223>	Artificial oligo sequence derived from human and animal adenovirus peptide sequences for binding to endothelial cell surface molecules	
<222>	misc_feature (1)(33) Oligonucleotide that is synthesized to generate fusion peptide for specific binding of the targeting peptide to the target cell	

```
<400> 41
ggccgcacac atatgatgat gaagatcagg aca
<210> 42
<211> 14
<212> PRT
<213> Artificial Sequence
<223> Artificial peptide sequence derived from human and
      animal adenovirus peptide sequences for binding to
      endothelial cell surface molecules
<221> BINDING
<222> (1)...(13)
<223> Target peptide
<400> 42
Lys Leu Ala Lys Leu Ala Lys Leu Ala Lys Leu Ala Lys
<210> 43
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Consensus sequence for SEQ ID NOs 1-37, derived
      from human and animal adenovirus peptide sequences
      for binding to endothelial cell surface molecules
<221> VARIANT
<222> (1)...(9)
<223> Xaa = Any Amino Acid
<400> 43
Cys Xaa Xaa Pro Thr Pro Pro Xaa Cys
```

33